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## **Appraisal of Knowledge Update among Guidance Counsellors of the Nigerian Universities: Focus on Information and Communication Technologies Utilization**

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### **Abstract**

*This study assessed the extent to which the guidance counsellors in Nigerian universities utilize Information and Communication Technologies (ICTs) for knowledge updated (KU) in this information age. Ku implies that knowledge already acquired should be evaluated and re-evaluated so as to be in line with the global expectations. The study adopted a descriptive survey. The population comprised all the guidance counsellors in the four federal and four state - owned universities in South – South and South –East zones of*

*Nigeria numbering 115. From the federal were 67 and from the state were 48. Four research questions and two null hypotheses guided the study. The sample size was 87 (51 from federal and 36 from state universities). Stratified random sampling due to ownership (federal and state) was used to select the universities while 75% of the population and guidance counsellors status (those that are lecturing) were used to select the guidance counsellors. The instrument was a 46 -item questionnaire developed by the researchers. The instrument was validated using Cronbach Alpha technique. The reliability coefficient was computed for the four sections, viz; section A = 0.80; B = 0.83; section C = 0.70 and D = 0.81. The instrument was administered with the help of four research assistants. The data collected were analyzed using means for research questions and t-test statistics for hypotheses at 0.05 alpha level. The result showed among others that the guidance counsellors in Nigerian universities have been utilizing ICTs to a low extent for KU. Therefore, the recommendations were that there has to be internet connectivity in Nigerian universities and free access to their usage. Again, the guidance counsellors should be motivated by way of special grants given to them for research works using ICTs for KU.*

**Key words:** Knowledge Update, Guidance and Counselling Services, Information and Communication Technologies (ICTs), Rationales and motivation.

## **Introduction**

The digital age in which we now live is regarded as an age of knowledge explosion. It is a new age which demands that the academic staff especially guidance counsellors of the Nigerian universities need to update and disseminate information appropriately. Anekwe and Ifeakor (2012) opined that it is not only an era which presents knowledge as not only the dominant factor in education but also in economics, politics and overall socio-cultural diathesis of every nation of the world. The knowledge - driven system of this contemporary world has created a novel situation commonly referred to as globalization. New technologies are constantly being developed providing undoubtful evidence that the age of knowledge and information is here to stay.

Allameh and Meghtadaie (2010) asserted that knowledge is a dynamic combination of experiences, values, subjects, information and professional information which provide a framework for evaluating and acquiring new experiences and information in a coherent and integrated manner.

Torunarigha (2011) was of the view that once knowledge is created and stored, there is need for such knowledge to be updated so as to keep abreast with the global trends; otherwise, such knowledge becomes obsolete. Therefore, it becomes pertinent that for guidance counsellors to remain sound scholars in knowledge, they need to constantly avail themselves to the existing and reliable sources of information and knowledge update in their areas of specialty.

Observation has shown that an academic staff in higher institutions who transfers knowledge to the society is, therefore, expected to be involved in knowledge creation and capacity building through digital empowerment. Digital empowerment for KU can occur when guidance counsellors improve their skills and knowledge, learn to share information, create new and diverse information flow, and increase their interaction and ways of participation in information high ways.

Knowledge Updated (KU) as explained in Torunarigha (2011) implies that the knowledge in question should also be evaluated and reevaluated so as to be in line with the present activities especially in this information explosion era. The need for information and knowledge update become more compelling when one finds himself in a position where he is expected to impart some knowledge to others who are presumed to be less informed. A university guidance counsellor, by virtue of his training and disposition, should be an embodiment of academic excellence, a model exhibiting some skills and competencies which he is expected to impact to others for greater effectiveness in his guidance and counselling services. As academics, the guidance counsellors need to update their knowledge in their areas of specialty through a variety of sources. These might include; journals both international and national, textbooks, conference/workshops, information from the internet, researches, brainstorming and through information and communication technologies facilities. Supporting this idea, Noble and Coughlin (1997) in Eze (2005) asserted that some areas of KU include journals, textbooks, conferences/ workshops, researches and electronic information sources. Contributing, Torunarigha (2011) added that the university academics need to be versatile not only in his own area of specialization but also in other disciplines especially in information and communication technologies (ICTs) usage. For sound self development and functional guidance and counselling services to students, knowledge of ICTs for KU is imperative, otherwise, the counsellor might be at the risk of being

termed, “Computer illiterate guidance counsellor”, his academic rank notwithstanding.

The relevance of guidance and counselling services in Nigerian universities should not be over emphasized. Some of these services which demands the use of ICTs for KU as outlined in Egbule (2005) are as follows:

- **Educational Services:** Here the university guidance counsellors are expected to help the students develop career awareness, provide students with adequate and useful educational social and vocational information.
- **Vocational Services:** Students are helped to make appropriate occupational choice by the guidance counsellors. Corey (1982) viewed vocational guidance as a process or programme of assistance designed to aid the individuals in choosing and adjusting to a vocation.
- **Information Services:** information Services is generally defined as the collection and dissemination of valid and useable information relating to the educational, vocational and personal social needs of the individual. This implies that information services is designed to help each student adjust to his environment; develop his total educational and vocational programmes.

Other services include; research services, orientations, socio-personal services, counselling services and referral services. These services are not explained for want of space.

The unlimited sources of KU abound that can make a counsellor a total person in counselling services in this technology driven age. These sources could be through research works, internet, virtual classrooms, radios, televisions, news papers, digital libraries and brainstorming. Unfortunately, it is doubtful if the counsellors of Nigerian Universities actually utilize the information and communication technologies (ICTs) for updating their knowledge. This underscores the need to verify the extent to which guidance counsellors utilize ICTs for KU.

ICTs are viewed in Becta (2002) cited in Lawani (2008) as the computing and communication facilities and features that variously support teaching and learning a range of activities in education. Similarly, Andural (2006) in Lawani (2008) defined ICTs as the use of media equipment in connecting,

processing, storing, analyzing and sending out information. Therefore, information is made easy through the use of information gadgets. ICTs should therefore be seen as tool for managing and transforming educational programmes in improving the quality of guidance counsellor's services in Nigerian universities.

The rationales for guidance counsellors to be using ICTs in discharging their duties are seen in the potentials which they can exhibit. ICTs have potentials of not only ensuring effectiveness and efficiency in these three areas (Educational services, vocational services and informational services). They also have the potentials of easing the administrative duties of guidance counsellors. When guidance counsellors of Nigerian Universities update their knowledge through ICTs, the following below could be the benefits:

- Preparation of current generation of students for future workplace that is, providing tools for tomorrow's practices. This observation was made in Lemka (1999) cited in Milken Exchange on Education Technology Commissioned Report (1999) who noted that, "Today's students live in a global knowledge based age, and they deserve counsellors whose practice embraces the best that technology can bring to learning". Through counsellors' use of ICTs in KU, students can be given the opportunities of becoming a part of the knowledge age and skills imparted to the young people in an increasing complex world. Guidance counsellors need to update their knowledge in order to equip tomorrow's employees and clients with the requisite competence and knowledge to use ICTs within their work (Davis and Tearle, 1999).
- With counsellors' updated knowledge through ICTs, the university environment stands to be more efficient and more productive, engendering variety of tools to support and facilitate students' professional activities.
- Knowledge updated through ICTs could be means to reform and innovate teaching, that is, to stimulate learners to learn actively and independently in a self – directed way and/or in collaboration with others.

Lawani (2008) has summarized the benefits of ICTs when utilized for KU:

- ICTs facilities sharing of resources, expertise and advice

- ICTs create greater flexibility in when and where counselling services tasks are carried out and easier planning and preparation of lessons and designing materials.
- It gives access to update students' data anytime and anywhere.
- It enhances professional image projected to colleagues.
- Students are generally moved "on task" and express more positive feelings when they use computers than when they are given other tasks to do.
- Guidance counsellors could use database management to keep students records which they could use to advice students for career choice.

Supporting the functional roles of ICTs for knowledge creation, sharing and KU, Anekwe and Ifeakor (2012) opined that the following as listed below could be achieved; (1) data codification, storage and retrieval employing standard DBMS system; data transfer and communication by use of internet, e-mail, portals etc; e-communities and online/virtual meeting points; specialized knowledge management systems for decision support.

In spite of the recognized rationales of ICTs for KU, there seems to be some challenges to their usage by the guidance counsellors in Nigerian universities. Some of these challenges might include; inadequate ICT infrastructure including computer hardware and software in Nigerian universities, lack of internet connectivity and lack of free access for the guidance counsellors; negative attitude of some guidance counsellors towards moving from traditional to digital era; lack of sponsorship by the university for attendance to conferences, workshops and lack of technical support. These facts were supported in Ivowi (2005) who noted that ICTs facilities were seriously inadequate in Nigerian tertiary institutions. Further, he warned that unless some measures are taken to address the obstacles encountered, the future of the academics in Nigerian universities is worrisome and perplexing. A study in Olulube (2005) found that lack of adequate ICTs infrastructure in universities has reduced the use of ICTs for knowledge creation and knowledge update. Another study in Bassey, Umoren Akuegwu, Udida, and Akpama (2007) cited in Ekpoh and Etor (2011) opined that the level of provision of technological infrastructures in Nigerian tertiary institutions is significantly inadequate.

Nevertheless, the researchers are optimistic that the above obstacles to KU could be surmounted if certain strategies are adopted. To this end, one would expect that provision of adequate modern technological facilities should be provided and allowing guidance counsellors free access to them should help to a great extent for KU. Specifically, provision of Laptops at a very reduced prices and modems that are fast in browsing might be great motivation to guidance counsellors for KU.

Writing on the concept of motivation, Peretomode (1991) in Ofojebe and Ezugoh (2010) opined that motivation is the process of influencing or stimulating a person to take action that will accomplish desired goals. However, guidance counsellor's motivation should be a way of empowering them in guidance counsellor's services. Again, it involves the perceptions, variables, methods, strategies and activities used by the management for the purpose of providing a climate that is conducive to the satisfaction of the various needs of the guidance counsellors, so that they may become satisfied, dedicated and effective in performing their tasks. Guidance counsellors should be motivated for KU in order to boost their productivity, effectiveness, efficiency and dedication in performing their tasks. No doubt, motivation for the use of ICTs for KU will enhance quality assurance in education, quality guidance and counselling services and quality instructional delivery in the educational system.

To appraise the KU among the guidance counsellors of Nigerian universities from South-South and South-East zones of Nigeria, the study sought to; determine the extent of utilization of ICTs for KU of guidance counsellors, identify the rationales for guidance counsellors usage of ICTs, the challenges to the use of ICTs and the extent of their motivation for the use of ICTs for KU.

The above objectives are laudable enough but the researchers are worried whether the guidance counsellors have been using ICTs for KU in this digital age. It might be that they are not fully aware of the rationales and challenges to the use of ICTs for KU. Also, the researchers are sceptical on the extent of motivation of guidance counsellors for the use of ICTs for KU. With this state of mind, the researchers present the problem of this study pose as a question: How would the guidance counsellors be motivated in order to be using ICTs to a high extent for knowledge update in this digital era? Providing answers to this question is the crux of this paper.

### **Purpose of the study**

The general purpose of this study is to ascertain the extent to which the guidance counsellors in Nigerian universities utilize Information Communication Technologies (ICTs) for knowledge update (KU) in this digital era.

Specifically, the study sought to:

- (1) Identify the extent to which the guidance counsellors in Nigerian universities utilize ICTs for KU.
- (2) Ascertain the rationales for the use of ICTs for KU by the guidance counsellors.
- (3) Determine the challenges to the use of ICTs for KU of the guidance counsellors in Nigerian universities.
- (4) Assess the extent to which the guidance counsellors are motivated for the use of ICTs for KU.

### **Research questions**

Four research questions guided the study:

1. To what extent do the guidance counsellors utilize ICTs for KU?
2. What are the rationales for the use of ICTs for KU by the guidance counsellors?
3. What are the challenges to the use of ICTs for KU by the guidance counsellors?
4. To what extent are the guidance counsellors motivated for the use of ICTs for KU?

### **Hypotheses**

Two Null hypotheses were tested at 0.05 alpha level of significance.

H<sub>01</sub>: There is no significant difference in the mean ratings of the guidance counsellors from the federal and state universities on the extent of utilization of ICTs for knowledge update.

H<sub>02</sub>: There is no significant difference in the mean ratings of the guidance counsellors from the federal and state universities on the rationales of their using ICTs for KU.

## **Methodology**

### **Design of the study**

The study adopted a descriptive survey design. The design was appropriate because it elicits and analyzes information from a sample of guidance counsellors in South-South and South East zones of Nigeria on the extent of utilization of ICTs for KU.

### **Area of study**

The study was carried out in the faculties of Education in the department of Psychology, Guidance and Counselling in both Federal and State universities in South-South and South-East zones of Nigeria. Four federal and four state universities were selected from the zones. They are: University of Port Harcourt (Uniport) and University of Calabar (UNICAL) from South-South while from the South-East zone are: Nnamdi Azikwe University (NAU) and University of Nigeria, Nsukka (UNN). Four State universities were involved in this study. The state universities involved from the South-South are: University of Education (UOE) in Rivers State and Niger Delta University (NDU) in Bayelsa State. From the South-East are; Anambra state University (ANSU), Uli and Enugu State University (ESUT). In all, four federal and four state universities were involved in this study.

### **Population of the study**

The target population consisted of all the guidance counsellors in the faculties of education, department of guidance and counselling and department of Educational Psychology in the four federal universities numbering 67 and all the guidance counsellors in the four state universities numbering 48. In all, the population from both the federal and state universities was 115.

### **Sample and sampling techniques**

The sample size comprised of 75% of the population (115) of both the federal and state universities, that is, 87 (51 guidance counsellors from the federal and 36 from the state universities and also guidance counsellors status (those

that are lecturing) was also considered. Stratified random sampling due to ownership (federal and state) was used to select the universities.

### **Instrument for data collection**

The instrument for data collection was a 46 – item questionnaire developed by the researchers. The instrument was titled “Appraisal of knowledge Update among the Guidance Counsellors’ (AKUAGC). The instrument comprised four sections. Section A was designed to elicit responses on the extent of utilization of ICTs for KU; Section B on the rationales of ICTs for KU; Section C was on the challenges of using ICTs for KU and Section D on the mechanisms for the use of ICTs for KU. The respondents were required to state their degree of agreement or disagreement on the item statements. The weightings for research questions 1 and 4 were Very High Extent (VHE) = 4points; High Extent (HE) = 3 points; Low Extent (LE) = 2 points and Very Low Extent (VLE) = 1 point for ease of analysis, only High Extent (HE) and Low Extent (LE) were used. Also Agree (A) and Disagree (D) were also used for ease of analysis. For research questions 2 and 3, the weightings were Strongly Agree (SA) = 4 points; Agree (A) = 3 points; Disagree (D) = 2 points and Strongly Disagree (SD) = 1. The weightings of the responses

were added thus,  $4 + 3 + 2 + 1 = \frac{10}{4} = 2.50$ . This becomes the acceptable mean.

### **Validation of the instrument**

The instrument was face-validated by two experts in guidance and counselling from Nnamdi Azikwe University and two from the department of Measurement and Evaluation and two from computer Science department in University of Port Harcourt. The experts, after examining the instrument, made some corrections on precisions of items and ambiguity of statements. These corrections were effected in the final draft of the instrument.

### **Reliability of the instrument**

The reliability of the instrument was computed using the responses from 10 guidance counsellors from both the university of Ibadan and Benue State University Makurdi which were not part of the area of the study. Data collected were computed using Cronbach Alpha technique. Internal consistency of the instrument was obtained as thus: Section A = 0.80; Section

B = 0.83; Section C = 0.70 and Section D = 0.81. The reliability coefficient values were considered appropriate for the study.

### **Method of data collection**

The researchers were helped by four research assistants to distribute copies of the questionnaires to the guidance counsellors. The questionnaires were collected after some hours, ensuring 100% return.

### **Method of data analysis**

Mean scores and standard Deviation were used to answer the research questions. The acceptable mean score was 2.50 or above while the mean of 2.49 or below was not accepted. Hypotheses were tested at 0.05 level of significance using t – test statistics.

The results were presented according to the research questions in Table 1, 2, 3, 4, 5 and 6.

The data in table 1 revealed that the items in Numbers 1, 3 – 7 and 9 – 12 scored below the acceptable mean score of 2.50. This indicated that the respondents from both the federal and state universities utilized the items to a low extent for KU viz; browsing the internet for information concerning guidance services, use of computers for data processing, brainstorming through online chatting, carrying out joint researches with the colleagues in other countries etc. Also, items in Numbers 2, 8, 13 and 14 scored up to the acceptable mean of 2.50 or above. Again, it is an indication that the respondents on both the federal and state universities utilized listening to international radios and watching cable televisions, made subscriptions to both national and international Guidance and Counsellors' journals through e-mail etc. to high extent for KU

The data in table 2 revealed vividly that all the listed items from Number 15 – 26 scored above the acceptable mean of 2.50 or above. This indicated that the respondents from both the federal and state universities from South-South and South-East unanimously agreed that ICTs would help the guidance counsellors to exchange ideas through e-mail with other experts and that ICTs provide knowledge update through internet browsing that help in guidance counsellors services among others.

The data in Table 3 showed that all the respondents from both the Federal and state universities were of the consensus that all the listed items like; lack of technology training and lack of full steady power supply among others are

some of the challenges to guidance counsellor's use of ICTs for KU. It is revealed also in the above table that all the items scored up to the acceptable mean of 2.50 or above.

The data in table 4 revealed clearly that the items in Numbers 37 and 45 scored up to the acceptable mean of 2.50 or above thus indicated that guidance counsellors in both federal and state universities were motivated to a high extent. The items in Numbers 38 – 44 and 46 scored below the acceptable mean thus indicated that guidance counsellors were motivated to a low extent in those items in both federal and state universities. However, in item Number 1, the guidance counsellors in federal universities were motivated to a high extent by way of staff development in the use of various ICTs equipment but those in state universities were motivated to a low extent.

In table 5,(see Appendix 1) t-calculated was 0.5129, while t-critical was 1.980 at 85df and 0.05 level of significance, t-calculated (0.5129) is less than the t-critical (1.980), hence, we fail to reject the null hypothesis of no significant difference between the mean ratings of guidance counsellors from the federal and state universities on the extent of utilization of ICTs for KU.

Table 6 (see Appendix 2) showed that t-calculated was 0.649 and t-critical was 1.980 at 85 df and 0.05 level of significance. Since, t-calculated is less than the t-critical, we fail to reject the null hypothesis. Hence, there is no significant difference between the mean ratings of guidance counsellors from federal and state universities on the rationale of using ICTs for KU.

### **Discussion of the findings**

The result of this study in table one showed that the guidance counsellors from both the federal and state universities were not utilizing many ICTs for knowledge update (KU). It was revealed vividly that items like browsing the internet for information concerning guidance services for the clients, brainstorming through online chatting, use of Computer-Assisted Instruction (CAI) and Computer-Managed Instruction (CMI) among others were utilized to a low extent by the respondents. Actually, the findings revealed that the respondents unanimously agreed that they still keep records of their clients strengths and weakness in academics manually instead of CAI and CMI which help in KU. The t-test statistics showed that there is no significant difference between the responses of guidance counsellors of federal and state universities in Nigeria on the extent of utilization of ICTs for knowledge

update (KU). This finding is in line with the result of Ifeakor and Okoli (2010) who noted that new technological resources in both federal and state universities in Nigeria are not sufficiently utilized in teaching and in their other responsibilities. A possible explanation for the low utilization of ICTs as observed in Ifeakor and Okoli (2010) could be under funding of the Nigerian universities which resulted in dearth of new technological resources and non-chalant attitude towards their utilization by the academics including the guidance counsellors.

The result of this study in table two showed that all the guidance counsellors unanimously agreed that the rationales for the use of ICTs in guidance and counselling services are seen in the facts that; ICTs help in the exchange of ideas through e-mail with other experts and CAI could help guidance counsellors in the storage and retrieval of information at will among others. The findings of hypothesis two also showed no significant difference between the mean ratings of guidance counsellors from federal and state universities on the rationales of ICTs for KU. This result is in line with the finding in numerous studies which have examined and confirmed the positive roles of ICTs in enhancing knowledge (Quah, 2001; Pohjola, 2001 and Smith, 2000). For instance, Quah and Smith in Ekpoh and Etor (2011) pointed out that ICTs system give the knowledge – based economy a new and different technological base which has radically changed the condition for knowledge creation, sharing and update. Similarly, evidence from literature suggested that ICTs is transforming the ways in which universities work, seeing their revival as veritable centres of research and advanced learning (Mahamed Nour, 2010). Oliver (2000) joined this parade by emphasizing the impact of ICTs on educational practices in higher institutions and pointed out that it is a tool with capacity to transform education from teacher directed enterprise to student centred models.

The findings in table three revealed that all the guidance counselors of both the federal and state universities had the consensus that all the listed items like lack of proper infrastructure and resources and lack of technology training of university academics were challenges to the use of ICTs. This finding corresponded with the results in the study carried in Torunarigha (2011) where all the respondents affirmed that; unavailability of proper technology infrastructure, lack of internet connectivity for free access and lack of provision of grants for attendance to both international and national conferences among others were the challenges to the use of multimedia gadgets for knowledge update. Ekpoh and Etor (2011) erred their views

about the challenges to the use of ICTs for KU when they asserted that it is saddening and not encouraging because universities are recognized globally as key agents for national development in view of their inherent capacity to foster knowledge creation and knowledge update.

In table four, the findings revealed generally that the guidance counsellors were not motivated to a high extent in the use of ICTs for knowledge update. Ifeakor and Okoli (2010) confirmed also that lecturers in Nigerian universities were poorly motivated, noting that some of them lack the technical skills in the use of these new technological devices, hence, are not enthusiastic in their teaching Guidance Counsellors' ought to be motivated in the use of ICTs so as to be abreast with the global trends. Some of the motivational strategies which are also good for guidance counsellors in this 21<sup>st</sup> century include the following; staff development and training in various ICTs facilities, recognition of counsellors as those to be empowered in ICTs due to their interaction with their clients, conducive working environment, provision of adequate technological facilities and sponsorship to local and international ICT-based seminars, conferences and workshops participations.

### **Conclusion**

The rationale for guidance counsellors to be using ICTs to a high extent in discharging their duties in Nigerian universities should not be over-emphasized. Some of their duties are to provide the following, viz; educational services, vocational services, socio-personal services, information services among others to their clients. These services would not be rendered creditably and reliably without the use of ICTs for knowledge update in this information explosion era. Egbule (2005) has noted that scientific and technological advancement coupled with educational development have provided enough impetus for the evolution of guidance counselling as a discipline and indeed as professional helping service. It therefore goes without argument that unless guidance counsellors in Nigerian universities are at home with ICTs for KU, their services stand the risk of not being accepted in the competitive global market.

### **Recommendations**

Based on the findings of this study, the researchers put forward the following recommendations:

- The federal and state universities authorities should provide adequately the ICTs facilities in their various universities so as to

enable the guidance counsellors to have them within their reaches. It is very difficult or almost impossible for them to be ICTs compliance without adequate provision of those technological equipment.

- There has to be internet connectivity in both the federal and state universities and free access to their usage should be granted to the guidance counsellors.
- Since the adequate provision of ICTs facilities do not guarantee the wherewithal in their usage, there has to be enough staff development in their usage. Two or three short staff training in a year in the use of ICTs for KU is not enough. The staff development should be through the following ways: (i) conferences, (ii) workshops and (iii) seminars.
- Guidance counsellors should be provided with good personal offices fully equipped with internet connectivity and other ICTs gadgets so that they will find it easy to use them for KU
- Priority attention has to be given to the guidance counselors by way of special grants for research works using ICTs that will equip them with the acquisition of expertise and robust experience in knowledge generation and update. This will serve as great motivation and sensitization to be utilizing ICTs especially in their areas of specialties.
- There has to be provision of steady full power supply in Nigerian universities for effective ICTs operation. This gesture is very necessary for the use of ICTs for KU, otherwise, the much noise about using ICTs for KU will be a mirage.

## **References**

- Allemeh, S. M. & Meghtadaie (2010). Assessing knowledge creation and the effects of institutional culture on it. *Journal of Applied Sociology*. 39(3), 49 – 68.
- Anekwe, J. U. & Ifeakor, A.C. (2012). Appraisal of knowledge creation of Nigerian federal universities Academics: Challenges for information and communication technologies. *Journal of Educational Review*. 4(4), 499 – 509.
- Bassey, U. U., Umoren, G.U., Akuegwu, B. A., Udida, L. A & Akpama, S. I. (2007). Impact of technology infrastructures on academic staff work

- performance in Southern Nigerian universities. In A. W. Ghani, J. S, Harkirat, A. Chamberlain, D. Boorer, K. Wood & A. Baimba (Eds). *Changing contours of education: future trends*. Brunei: University of Brunei Printing Press.
- Corey, G. (1982). *Theory and practice of counseling and psychotherapy*. California: Brooks Cole Publishing Co.
- Davis, N. E. & Tearle, P. (Eds.) (1998). A care curriculum for telematics in teachers training. Teleteaching 98 conference. Vienna. Retrieved November, 28, 2003, from <http://www.ex.ac.uk/telamatics/T3/corecurr/teach98.htm>.
- Egbule, J. F. (2005). *Methodology of guidance and counseling: Professional manual for counseling psychologists*. Owerri: Cannon Publishers Ltd.
- Ekpoh, U. I. & Etor, C. R. (2011). Academic staff utilization of information and communication technology and knowledge creation in universities in Cross Rivers State, Nigeria. *Paper Presented at the 6<sup>th</sup> Regional Conference on Higher Education for Knowledge Creation and Capacity Building*, organized by Higher Education Research and Policy Network (HERPNET) held at Conference Centre, University of Lagos, Akoka-Yaba, Lagos.
- Eze, C. U. (2005). Knowledge update and Nigerian academics: A case study of Enugu state university of science and technology. In D.N. Eze and N. Onyegegbu, *Knowledge Generation and Dissemination: Issues and Challenges in Nigerian University*. Pp. 62 – 68. Enugu: Pearls and Gold.
- Hendriks, P. H. J. (2001). Many rivers to cross: from ICT to knowledge management systems. *Journal of Information Technology*, 16, 57 – 32.
- Ifeakor, A. C. & Okoli, J. N. (2010). Appraisal of the availability and utilization of new technological resources for science curriculum delivery in Nigerian universities. *African Research Review: An International Multidisciplinary Journal*, Ethiopia. 4(2), 370 – 383.
- Ivowi, U. M. (2005). An appraisal of knowledge in Nigerian tertiary institutions for the 21st century. In D. N. Ezech & Onyegegbu, N.

(ed). *Knowledge Generation and Dissemination: Issues and Challenges in Nigerian Universities* 1 – 13. Pearls and Gold.

- Lawani, B. A. (2008). The role of information and communication technology (ICT) in improving the quality of education in tertiary institutions in Nigeria. *Oju Journal of Women in Colleges of Education*. (OJUWICE). 1(1), 14 – 36.
- Milken Exchange –art Education Technology (1999). Will new teachers be prepared to teach in a digital age? Santa Monica: Milken family foundation. Retrieved January 13<sup>th</sup>, 2004, from <http://www.mff.org/pubs/ME1544.df>.
- Mohammed–Nour, S. S. (2010). The impact of ICT in the transformation and production of knowledge in Sudan. United Nations. *Working Paper Series*.
- Ofojebe, W. N. & Ezugoh, T. C. (2010). Teachers' motivation and its influence on quality assurance in Nigerian educational system. *African Research Review: An International Multi-Disciplinary Journal*, Ethiopia: 4(2), 398 – 417.
- Oladele, J. O. (1996). *Guidance and counseling: A functional approach*: Lagos: John-Lad Pub.
- Oliver, R. (2000). The role of ICT in higher education for the 21<sup>st</sup> century. ICT as a change agent for education. *Proceedings of higher education for 21st century conference*. Miri Sarawaki: Curtin University.
- Ololube, N. P. (2005). Appraising the relationship between ICT usage and integration and the standard of teacher education programs in a developing economy. *International Journal of Education and Development Using ICT (IJEDICT)*. 2(3), 1 – 12, 70 – 85.
- Pohjola, M. (2009). *Information technology productivity and economic growth*. Oxford: Oxford University Press.
- Quah, D. (2001). The weightless economy in economic development. In M. Pohjola (ed). *Information technology, productivity and economic growth: International evidence and implication for economic growth*. Oxford: Oxford University Press. 271 – 299.

Smith, K. (2000). What is the knowledge economy, knowledge – intensive industries and distributed knowledge bases. *Paper Presented to DRUID Summer Conference on the Learning Economy, Firms, Regional and Nation Specific Institutions.*

Torunarigha, Y. D. (2012). Assessment of knowledge update among the academic staff of the Nigerian federal universities: focus on multimedia communications utilization. *Journal of National Educational Research Association of Nigeria (EBSU).* 20(5), 1 – 24.

**APPENDIX: Tables**

**Table 1: Mean Ratings of Federal and State Guidance Counsellors on the Extent of Utilization of ICTs for KU**

S/N	Items	Federal University Guidance Counsellors			State University Guidance Counsellors		
		$\bar{x}$	SD	Remark	$\bar{x}$	SD	Remark
	Items on the Extent of Utilization of ICTs						
	To what extent do you utilize the underlisted for KU						
1.	Browsing the internet for information concerning guidance services for clients	1.92	1.73	LE	2.13	1.81	LE
2.	Listening to international radios.	3.45	2.73	HE	3.28	2.58	HE
3.	Use of computers for data processing of clients' information	1.35	1.23	LE	1.12	1.11	LE
4.	Brainstorming through online chattings	2.23	1.19	LE	2.18	1.78	LE
5.	e-mailing to clients and other Guidance Counselors	2.32	1.82	LE	1.32	1.25	LE
6.	Carrying out joint researches with those in the same disciplines through the internet	2.25	1.50	LE	1.19	1.10	LE
7.	Carrying out joint researches with colleagues in other countries through the internet	2.15	1.10	LE	1.98	1.58	LE
8.	Making subscriptions to both national and international Guidance Counselors' journals	3.15	2.32	HE	3.00	1.95	HE

	through e-mail						
9.	Use of Computer – Assisted (CAI) instruction in teaching and learning	1.85	1.85	LE	1.95	1.68	LE
10.	Use of Computer Managed Instruction (CMI), for keeping records of students' progress	2.35	1.90	LE	1.32	1.28	LE
11.	Virtual Classroom Experiences	1.98	1.55	LE	1.45	1.30	
12.	Attending and participating in international academic conferences through teleconferencing	2.45	1.81	LE	2.65	1.95	LE
13	You keep records of your clients' strengths and weakness in academics manually	3.95	2.24	HE	3.99	2.88	HE
14	e-marking is used by guidance counsellors for students' scripts	2.55	1.65	HE	2.65	2.25	HE
	Grand Mean	2.38	1.80		2.13	1.74	

**Table 2: Mean Ratings of Federal and State Guidance Counsellors on the Rationales for their Use of ICTs in Counselling services**

S/N	Items	Federal University Guidance Counselors			State University Guidance Counselors		
		$\bar{x}$	SD	Remark	$\bar{x}$	SD	Remark
	Items on the Rationale of Usage of ICTs in Guidance and Counseling' Services						
	Rationales for the use of ICTs in guidance and Counseling services are seen in the following ways:						
15.	ICTs help the guidance counsellors to exchange ideas through e-mail with other experts	3.25	2.95	A	3.11	2.38	A
16.	Computer – Assisted Instruction helps guidance counsellors to use the storage facilities of a	3.10	1.15	A	3.22	2.15	A

	computer to assess individual progress .						
17.	ICTs provide knowledge update through internet browsing that help in guidance counsellors' services	2.75	2.00	A	2.58	1.95	A
18.	ICTs provide information on gathering through GSM	3.42	2.10	A	3.33	2.18	A
19.	Enriches information through guidance and counseling research works	3.21	1.68	A	3.65	2.32	A
20	Data transferring and communication by use of internet, e-mail portal	2.61	1.42	A	2.50	1.66	A
21.	Data codification, storage and retrieval employing standard DBMS system	2.95	1.88	A	3.22	2.48	A
22.	Expert and intelligent system for decision support in career choice	2.79	1.92	A	2.67	1.85	A
23	Specialized knowledge management system for organizations	3.00	2.45	A	3.19	2.82	A
24	e-communication and on-line/ virtual meeting points	2.87	1.75	A	2.77	1.98	A
25	Provides information on avenues for collaboration works	2.96	2.11	A	2.58	2.11	A
26	ICTs help to unveil areas where guidance counsellors can advice the students to apply for further studies	3.28	2.18	A	3.10	2.25	A
	Grand Mean	3.20	1.97		2.99	2.18	

**Table 3: Mean Ratings of Federal and State University Guidance Counsellors on the Challenges to the use of ICTs for KU**

S/N	Items	Federal University Guidance Counsellors			State University Guidance Counsellors		
		$\bar{X}$	SD	Remark	$\bar{X}$	SD	Remark
	Items on the challenges to the use of ICTs for KU						
	The following are the challenges to the G& Cs use of ICTs						
27.	Most guidance counsellors do not have the wherewithal in the use of ICTs	3.64	2.35	A	3.73	2.64	A
28	Lack of technology training of university academics	3.19	2.15	A	2.95	1.90	A
29	Lack of proper infrastructure and resources	2.95	1.92	A	2.68	1.86	A
30	Lack of internet connectivity in most universities for lecturers free access	3.83	2.45	A	3.22	2.18	A
31	Lack of sincere commitment to guidance counsellors development in the use of ICTs by the university authorities	2.96	1.98	A	3.15	1.99	A
32	Lack of sponsorship to international conferences where the use of ICTs are mandatory for presentations	3.99	2.65	A	2.77	1.45	A
33	Lack of personal computers in most guidance counsellors offices	2.88	1.83	A	2.92	1.52	A
34.	High maintenance costs of ICTs equipment	2.67	1.55	A	3.10	2.12	A
35	Lack of full steady power supply for ICTs operations	2.78	2.35	A	2.75	1.85	A
	Grand Mean	3.20	2.13		3.03	1.95	

**Table 4: Mean Ratings of Federal and State University Guidance Counsellors on the Extent of their Motivations**

S/N	Items	Federal University Guidance Counsellors			State University Guidance Counsellors		
		$\bar{X}$	SD	Remark	$\bar{X}$	SD	Remark
	Items on the Extent of Motivation of guidance counsellors						
	Indicate the extent to which you are motivated so as to be						
36.	Staff development on the use of various ICTs equipment	2.53	1.94	HE	2.45	1.98	LE
37	Internet connectivity in your university	3.13	2.19	HE	3.00	2.82	HE
38.	Internet connectivity in your office	1.25	1.19	LE	1.12	1.09	LE
39	Free access to internet browsing for the guidance counsellor	2.05	1.45	LE	2.32	1.84	LE
40.	You have been sponsored to be attending ICTs supported conferences at least 3 times a year	1.20	1.11	LE	2.38	1.98	LE
41	There are research grants to guidance counsellors for credible research works	2.15	1.95	LE	1.18	1.51	LE
42	You have a personal office with a personal computer and its peripherals	1.58	1.45	LE	1.95	1.35	LE
43.	Your department has a digital library for guidance counsellors	1.08	1.19	LE	2.38	1.95	LE
44.	You have been provided with a laptop by the university at a very reduced price.	2.09	1.18	LE	2.44	1.75	LE
45.	You have been provided with a generator in your faculty to help you in the operation of ICTs when you need it	3.45	2.98	HE	2.98	1.78	HE
46.	There is uninterrupted power supply for the use of ICTs for guidance services	2.00	1.84	LE	1.29	1.18	LE
	Grand Mean	2.05	1.66		2.14	1.70	

**Table 5: t-test Statistics of the Mean Ratings of Federal and State Guidance Counsellors on the Extent of Utilization of ICTs for KU**

Source of variation	N	$\bar{x}$	SD	Df	t-cal	t-crit	Decision
Federal Universities Guidance Counsellors	51	2.38	1.80	85	0.5128	1.980	H <sub>0</sub> not rejected
State Universities Guidance Counsellors	36	2.18	1.74				

**Table 6: t-test statistics of the Mean Ratings of Federal and State Guidance Counsellors on the Rationales of Using ICTs for Guidance Services**

Source of variation	N	$\bar{x}$	SD	Df	t-cal	t-crit	Decision
Federal Universities Guidance Counsellors	51	3.02	1.97	85	0.0649	1.980	H <sub>0</sub> not rejected
State Universities Counsellors	36	2.99	2.18				